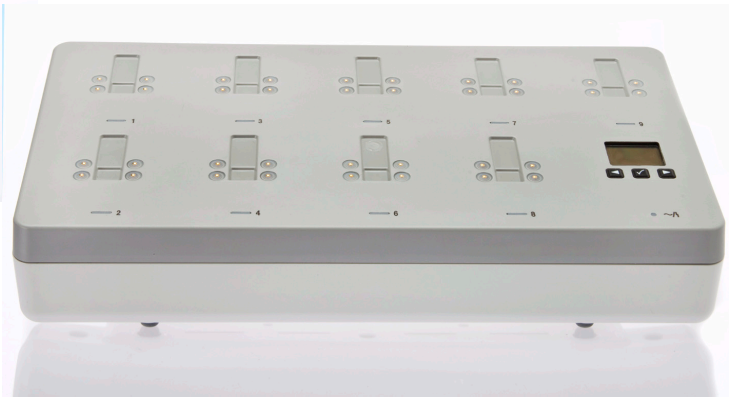

IntelliVue Cableless Measurements

IntelliVue CL SpO2 Pod, CL NBP Pod & CL Charging Station Technical Data Sheet

The IntelliVue Cableless Measurements Family provides cableless measurement devices for patient monitoring.

The IntelliVue Cableless Measurements family consists of:

- IntelliVue CL SpO2 Pod
- IntelliVue CL NBP Pod

with their respective accessories and auxiliary devices such as the IntelliVue CL Charging Station.

The devices can be used together with IntelliVue patient monitors or telemetry devices.

Features

- Increased patient mobility, safety and comfort
- Small, lightweight and robust
- Easy to apply and comfortable to wear
- Integrated Li-Ion battery in SpO_2 Pod and NBP Pod with long battery run-time
- Connectivity via Short Range Radio (SRR) to IntelliVue Patient Monitors and Telemetry Transceiver
- Compatible with:
  - IntelliVue MP2/X2
  - IntelliVue MP5/MP5T/MP5SC
  - IntelliVue Telemetry SystemTransceiver TRx4841A/TRx4851

PHILIPS

Intended Use

IntelliVue CL SpO2 Pod

The intended use of the IntelliVue CL SpO2 Pod when used together with IntelliVue Patient Monitors MP5/MP5T/MP5SC, MP2, X2, or with the IntelliVue Telemetry System Transceiver TRx4841A/TRx4851A, is for monitoring, recording, and alarming arterial oxygen saturation and pulse rate of adult and pediatric patients inside hospitals. The device is intended for use by health care professionals. It is NOT intended for home use.
The IntelliVue CL SpO2 Pod is not a therapeutic device.

IntelliVue CL NBP Pod

The intended use of the IntelliVue CL NBP Pod when used together with IntelliVue Patient Monitors MP5/MP5T/MP5SC, MP2, X2, or with the IntelliVue Telemetry System Transceiver TRx4841A/TRx4851A, is for monitoring, recording, and alarming of systolic, diastolic and mean pressure and pulse rate of adult and pediatric patients inside hospitals. The device is intended for use by health care professionals. It is NOT intended for home use.
The IntelliVue CL NBP Pod is not a therapeutic device.

Rx only: US Federal Law restricts these devices to sale by or on the order of a physician.

Main Components

IntelliVue CL SpO_2 Pod

The IntelliVue CL SpO_2 Pod is a small, battery powered, wrist worn pulse oximeter device for cableless monitoring of patients.

- Contains Philips FAST-SpO2 (Fourier Artifact Suppression Technology) to provide reliable saturation values under various artifact conditions including motion and low perfusion
- Continuous operating mode and intermittent operating mode with configurable measurement intervals
- Integrated monochrome LCD display shows measured values, measurement signal quality, battery state, and RF signal strength
- Three hardkeys for basic operation and navigation
- Requires specialized Philips SpO_2 sensors

IntelliVue CL NBP Pod

The IntelliVue CL NBP Pod is a small, battery powered , non-invasive blood pressure and pulse rate measurement device for cableless monitoring of patients.

- Produces numerics for systolic, diastolic and mean blood pressure values and pulse rate (during NBP measurement)
- Integrated monochrome LCD Display for measured values, battery state, and RF signal strength
- Three hardkeys for basic operation and navigation
- Requires specialized Philips NBP cuffs
- Supports reusable and disposable cuffs

IntelliVue CL Charging Station

The IntelliVue CL Charging Station is a battery charger with nine charging slots for SpO_2 Pod and NBP Pod.

- Supports charging of SpO_2 Pod and NBP Pod. SpO_2 Pod requires one slot, NBP Pod requires two slots.
- Battery status indicator at each slot
- Integrated monochrome LCD display for battery status information
- Three hardkeys for basic operation.
- USB device interface to connect to a PC
- built-in power supply
- charging time max. 2.5 h

Specifications

Safety Specifications

IntelliVue CL SpO_2 Pod, NBP Pod:

CE 0366

IntelliVue CL Charging Station:

CE

The devices comply with the Medical Device Directive 93/42/EEC.
In addition, the devices comply with:
IEC 60601-1:1988 + A1:1991 + A2:1995; EN60601-1:1990 + A1:1993 + A2:1995; UL 60601-1:2003; CAN/CSA C22.2#601.1-M90 + S1 + A2; JIS T 0601-1:1999; IEC 60601-1-1:2000 EN 60601-1-1:2001; IEC 60601-1-2:2001 + A1 2004; EN 60601-1-2:2001 + A1 2004.
The possibility of hazards arising from software errors was minimized in compliance with ISO 14971:2007, EN60601-1-4:1996 + A1:1999 and IEC 60601-1-4:1996 + A1:1999.
Classification (according to IEC 60601-1):
IntelliVue CL SpO2 Pod, NBP Pod: Class II, Type CF, Continuous Operation
IntelliVue CL Charging Station: Class I, Continuous Operation

EAS Tag

The IntelliVue CL NBP Pod and the IntelliVue CL SpO2 Pod are equipped with a non-deactivatable EAS (Electronic Article Surveillance) Tag for lost/theft protection.
Compatible with 58kHz EAS detection systems.
Used EAS Tag type: ZLAML-NDLS4
Further information on: www.sensormatic.com

IntelliVue CL SpO2 Pod

Complies with ISO 9919:2005 / EN ISO 9919:2009.

IntelliVue CL SpO2 Pod Physical Specifications	
Size (W X D X H)	53.5 mm x 65 mm x 27 mm ±5% (without cradle and sensor)
Weight	80 g ±10% (without cradle and sensor)
Robustness	Provides essential performance during exposure to random vibration according to IEC TR 60721-4-7 Class 7M1
	Survives shock, random vibration and bump according to IEC TR 60721-4-7 Class 7M3 as well as a 1m drop
Ingress Protection	IP34 according to IEC 60529

IntelliVue CL SpO2 Pod Environmental Specifications	
Operating Temperature Range	0 to 40°C (32 to 104°F)
Operating Humidity Range	≤95%RH @ 40°C (104°F)
Operating Altitude Range	-500 to 3000m
Storage / Transportation Temperature Range	-20 to 60°C (-4 to 140°F)
Storage / Transportation Humidity Range	≤90% RH @ 60°C (140°F) no condensation
Storage / Transportation Altitude Range	-500 to 4600m

Measurement Validation

The SpO2 accuracy has been validated in human studies against arterial blood sample reference measured with a CO-oximeter. Pulse oximeter measurements are statistically distributed, only about two-thirds of the measurements can be expected to fall within the specified accuracy compared to CO-oximeter measurements.

IntelliVue CL SpO2 Pod Performance Specifications	
SpO2	
Measurement Range	0 to 100%
Accuracy The specified accuracy is the root-meansquare (RMS) difference between the measured values and the reference values	Mobile CL DSpO2-1A single patient sensor: 3% (70 to 100%) Mobile CL RSpO2-1A reusable sensor: 3% (70 to 100%)
Resolution	1%
Pulse Oximeter Calibration Range	70% to 100%
Demo Signal	100%
Pulse	
Measurement Range	30 to 300 bpm
Accuracy	±2% or 1 bpm, whichever is greater
Resolution	1 bpm
Demo Signal	60 bpm ±1
Sensors	
Wavelength Range Information about the wavelength range can be especially useful to clinicians (for instance, when photodynamic therapy is performed)	500 to 1000 nm

IntelliVue CL SpO2 Pod Performance Specifications	
LED Power Dissipation	Temperature rise at sensor skin interface in compliance with ISO 9919
Optical Output Power	≤15mW
For further information on accessory specifications, refer to the accessory IfU.	
Display Specifications	
Type	monochrome (4 gray scales), passive LCD (STN), positive/ transflective
Viewing Area	25.6 mm x 19.2 mm
Dot Size	0.2 mm x 0.2 mm
Resolution	128 x 96 pixel
Backlight	white LED
Sounds	
Sounds	Audible feedback for user input Prompt tone Pulse tone
Battery	
Battery	Integrated rechargeable Li-Ion battery with battery gauge and cycle counter
Runtime (fully charged battery)	Continuous measurement: Typically 24 hours minimum 12 hours Intermittent measurement: Typically > 32 hours with repetition interval of 2.5 minutes
Charging Time	max 2.5 hours
Short Range Radio Specifications	
Type	built in interface with integrated antenna
Technology	IEEE 802.15.4
Frequency band	2.4 GHz ISM (2.400 - 2.483 GHz)
Modulation	DSSS (O-QPSK)

IntelliVue CL SpO2 Pod Performance Specifications	
Receiver bandwidth	5 MHz
Effective radiated power (ERP)	max. 0 dBm (1mW)
Realtime Clock Specifications	
Accuracy	less than 5 seconds (typ.) per day, as long as device is in power state "Device On" or "Device off". Automatically synchronized with assigned patient monitor/ telemetry device.

IntelliVue CL NBP Pod

Complies with IEC 60601-2-30:1999 / EN 60601-2-30:2000.

IntelliVue CL NBP Pod Physical Specifications	
Size (H x W x D)	138 x 65 x 30.5 mm ±5% (without cradle and cuff)
Weight	200g ±10% (without cradle and cuff)
Robustness	Provides essential performance during exposure to random vibration according to IEC TR 60721-4-7 Class 7M1
	Survives shock, random vibration and bump according to IEC TR 60721-4-7 Class 7M3 as well as a 1m drop

IntelliVue CL NBP Pod Environmental Specifications	
Operating Temperature Range	0 to 40°C (32 to 104°F)
Operating Humidity Range	≤95% RH @ 40°C (104°F)
Operating Altitude Range	-500 to 3000m
Storage/Transportation Temperature Range	-20 to 60°C (-4 to 140°F)
Storage/Transportation Humidity Range	≤90% RH @ 60°C (140°F) (non-condensing)
Storage/Transportation Altitude Range	-500 to 4600m

IntelliVue CL NBP Pod Performance Specifications	
NBP	
Measurement Ranges	**Adult**: Systolic: 30 to 270 mmHg (4.0 to 36.0 kPa) Mean: 20 to 255 mmHg (2.5 to 34.0 kPa) Diastolic: 10 to 245 mmHg (1.5 to 32.0 kPa) **Pediatric:** Systolic: 30 to 180 mmHg (4.0 to 24.0 kPa) Mean: 20 to 160 mmHg (2.5 to 21.0 kPa) Diastolic: 10 to 150 mmHg (1.5 to 20.0 kPa)
Pressure Transducer Accuracy (0 to 300 mmHg)	±3 mmHg @ 15 to 25 °C ±(3 mmHg or 2% whichever is greater) @ 10 to 40°C
Blood Pressure Measurement Accuracy	According to ANSI/AAMI SP 10 - 1992/2002 8 mmHg standard deviation ±5 mmHg mean error
Pulse Rate Measurement Range	40 to 300 bpm
Pulse Rate Measurement Accuracy	40 - 100 bpm: ±5 bpm 101 - 200 bpm: ±5% of reading 201 - 300 bpm: ±10% of reading (average over NBP measurement cycle)
Measurement Time	Auto/manual/sequence mode: Typical 40 seconds @ >60 bpm and normal adult cuff Maximum 180 seconds STAT Mode: Typical 30 seconds @ >60 bpm and normal adult cuff Maximum 180 seconds
STAT Mode Cycle Time	5 minutes
Initial Cuff Inflation Pressure	Adult: 165 ±15 mmHg Pediatric: 130 ±15 mmHg
Venipuncture Pressure Range	Adult: 20 to 120 mmHg in steps of 5 mmHg Pediatric: 20 to 80 mmHg in steps of 5 mmHg
Venipuncture Pressure Accuracy	±10 mmHg

IntelliVue CL NBP Pod Performance Specifications	
Cuff size detection	INOP, if neonatal cuff size is detected
Demo Signal	Adult: 120/80 (90) mmHg Pediatric: 100/60 (80) mmHg
Display Specifications	
Type	monochrome (4 gray scales), passive LCD (STN), positive/ transflective
Viewing Area	25.6 mm x 19.2 mm
Dot Size	0.2 mm x 0.2 mm
Resolution	128 x 96 pixel
Backlight	white LED
Sounds	
Sounds	Audible feedback for user input Prompt tone Pulse tone
Battery	
Battery	Integrated Li-Ion battery with battery gauge and cycle counter
Runtime (fully charged battery)	Minimum 8 hours @ 4 measurements per hour Typical 24 hours @ 2 measurements per hour
Battery Recharge Time	Maximum 2.5 hours
Short Range Radio Specifications	
Type	built in interface with integrated antenna
Technology	IEEE 802.15.4
Frequency band	2.4 GHz ISM (2.400 - 2.483 GHz)
Modulation	DSSS (O-QPSK)
Receiver bandwidth	% MHz
Effective radiated power (ERP)	max. 0 dBm (1mW)
Realtime Clock Specifications	

IntelliVue CL NBP Pod Performance Specifications	
Accuracy	less than 5 seconds (typ.) per day, as long as device is in power state "Device on" or "Device off". Automatically synchronized with assigned patient monitor/ telemetry device.

Measurement Validation: The blood pressure measurements determined with this device comply with the American National Standard for Electronic or Automated Sphygmomanometers (ANSI/ AAMI SP10:2002/(R)2008 + A1:2003/(R)2008)) in relation to mean error and standard deviation, when compared to auscultatory measurements in representative patient population. For the auscultatory reference the 5th Korotkoff sound was used to determine the diastolic pressure.

IntelliVue CL Charging Station

IntelliVue CL Charging Station Physical Specifications	
Size (W X D X H)	343 mm x 172 mm x 117 mm ±5%
Weight	2000 g ±10%
Robustness	Operating within specification during exposure to random vibration according to IEC TR 60721-4-7 Class 7M1
	Survives shock and 0.05 m free fall according to IEC TR 60721-4-7 Class 7M1

IntelliVue CL Charging Station Environmental Specifications	
Operating Temperature Range	0 to 35°C (32 to 104°F)
Operating Humidity Range	≤95%RH @ 40°C (104°F)
Operating Altitude Range	-500 to 3000m
Storage / Transportation Temperature Range	-20 to 60°C (-4 to 140°F)
Storage / Transportation Humidity Range	≤90% RH @ 60°C (140°F) no condensation
Storage / Transportation Altitude Range	-500 to 4600m

IntelliVue CL Charging Station Performance Specifications	
Display Specifications	
Type	monochrome (4 grey scales), passive LCD (STN), positive/ transflective
Viewing Area	25.6 mm x 19.2 mm
Dot Size	0.2 mm x 0.2 mm
Resolution	128 x 96 pixel
Backlight	white LED
General Specifications	
Sounds	Audible feedback for user input Prompt tone
Mains Power	50/60 Hz; 1.3 - 0.7A; 100 - 240V~
USB Downstream	Standard: USB 2.0 low/full speed Host Port Power Output: 5V ± 5%, 500mA max Connector: USB series "Standard-A" receptacle
USB Upstream	Standard: USB 2.0 full speed Device Port Power input: "self powered device" Connector: USB series "Standard-B" receptacle

Ordering Information

Description	Option Number
20 Mobile CL DSpO2-1A Sensors (disposable) 20 Wristbands 20 Cradles	865215 #K01
20 Mobile CL Disposable Adult Cuffs 20 Mobile CL NBP Cradles	865216 #K01

Accessories

IntelliVue CL SpO2 Pod

All listed sensors operate without risk of exceeding 41°C on the skin, if the initial skin temperature does not exceed 35°C.

Make sure that you use only the accessories that are specified for use with this device, otherwise patient injury can result.

Description	Contents	Order Number
Mobile CL 20 single patient SpO2 Sensors and Cradles for use on pediatric and adult patients >10kg	20 Disposable Mobile CL DSpO2-1A Sensors 20 Wristbands 20 Cradles pre-configured	989803165941
Mobile CL 20 single patient SpO2 Sensors for use on pediatric and adult patients >10kg	20 Disposable Mobile CL DSpO2-1A Sensor Pack of 20	989803165921
Mobile CL 20 SpO2 Cradles	20 Cradles 20 Wristbands	989803165951
Mobile CL 50 SpO2 Wristbands	50 Wristbands	989803165961
Mobile CL SpO2 Battery Kit	1 Battery 1 disassembly tool 1 front panel	989803168861

IntelliVue CL NBP Pod

Description	Limb Circumference Range	Bladder Width	Order Number
Mobile CL Disposable Small Adult Cuff (20 cuffs)	21 - 27 cm	10.5 cm	989803163181
Mobile CL Disposable Adult Cuff (20 cuffs)	26.0 - 34.5 cm	13.0 cm	989803163201
Mobile CL Disposable Large Adult Cuff (20 cuffs)	33.5 - 45.0 cm	16.0 cm	989803163221

Description	Order Number
Mobile CL NBP Cradle Kit (20 cradles)	989803163251
Mobile CL Extension Air Hose, 1.0 m	989803163131
Mobile CL NBP Battery Kit (1 Battery, 1 disassembly tool,1 front panel)	989803163261
Telemetry Pouch w/window (50 pouches)	989803137831
Telemetry Pouch w/window (4 boxes of 50 pouches)	989803140371
White Telemetry Pouch with Snaps; box of 50. (50 pouches)	989803101971 (9300-0768-050)
White Telemetry Pouch with Snaps; 4 boxes of 50. (4 boxes of 50 pouches)	989803101981 (9300-0768-200)

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CE 0366

The 865215 CL SpO_2 Pod, 865216 CL NBP Pod and CL 865220 CL Charging Station comply with the requirements of the Council Directive 93/42/EEC of 14 June 1993 (Medical Device Directive).

Please visit www.philips.com/

Printed in The Netherlands.
4522 962 65231 * SEP 2010